



22852

PATENT TRADEMARK OFFICE

PATENT
Attorney Docket No. 05725.0654AF
1700**BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Application of:)

Gerard LANG et al.)

Application No.: 09/600,134)

Group Art Unit: 1751

Filed: September 11, 2000)

Examiner: Eisa B. Elhilo

For: KERATINOUS FIBRE)
OXIDATION DYEING)
COMPOSITION CONTAINING A)
LACCASE AND DYEING)
METHOD USING SAME)RECEIVED
JUN 12 2003
TC 1700**Mail Stop Appeal Brief--Patents**Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

TRANSMITTAL OF APPEAL BRIEF (37 C.F.R. 1.192)

Transmitted herewith in triplicate is the APPEAL BRIEF in this application with respect to the Notice of Appeal filed on March 10, 2003.

This application is on behalf of



Small Entity



Large Entity

Pursuant to 37 C.F.R. 1.17(f), the fee for filing the Appeal Brief is:



\$160.00 (Small Entity)



\$320.00 (Large Entity)

TOTAL FEE DUE:

Appeal Brief Fee \$320.00

One Month Extension Fee \$110.00

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\$430.00

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☒ Enclosed is a check for \$430.00 to cover the above fees.

PETITION FOR EXTENSION. If any extension of time is necessary for the filing of this Appeal Brief, and such extension has not otherwise been requested, such an extension is hereby requested, and the Commissioner is authorized to charge necessary fees for such an extension to our Deposit Account No. 06-0916. A duplicate copy of this paper is enclosed for use in charging the deposit account.

FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.

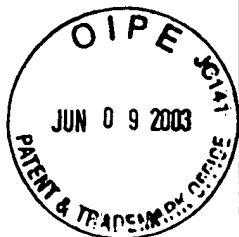
Dated: June 9, 2003

By: 

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PATENT TRADEMARK OFFICE

PATENT
Attorney Docket No. 05725.0654

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of:

Gerard LANG *et al.*

Application No.: 09/600,134

Filed: September 11, 2000

For: KERATINOUS FIBRE OXIDATION
DYEING COMPOSITION
CONTAINING A LACCASE AND
DYEING METHOD USING SAME

Group Art Unit: 1751

Examiner: Eisa B. Elhilo

RECEIVED
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Patents**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

APPEAL BRIEF UNDER 37 C.F.R. § 1.192

In support of the Notice of Appeal filed March 10, 2003, and pursuant to 37 C.F.R. § 1.192, Appellants present in triplicate this brief and encloses herewith a check for the fee of \$320.00 required under 37 C.F.R. § 1.17(c).

This Appeal is filed in response to the final rejection dated October 8, 2002, of claims 22-58, which are set forth in the attached Appendix. A Notice of Appeal was filed on March 10, 2003. The period for filing the Appeal Brief has been extended one month to June 10, 2003, by the accompanying petition and fee. If any additional fees are required or if the enclosed payment is insufficient, Appellants request that the required fees be charged to Deposit Account No. 06-0916

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Real Party In Interest

L'Oréal S.A. is the assignee of record.

Related Appeals and Interferences

Appellants' undersigned legal representative knows of no other appeals or interferences that will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

Status Of Claims

Claims 22-58 are at issue in this appeal. No claims have been allowed. Claims 22-58 have been finally rejected under 35 U.S.C. § 103(a).

Status Of Amendments

The preliminary amendment has been entered, and no amendments under 37 C.F.R. §§ 1.111, 1.114, or 1.116 have been filed.

Summary Of Invention

The invention relates to a composition for the oxidation dyeing of keratinous fibers and in particular human keratinous fibers such as hair, comprising, in a medium appropriate for dyeing, at least one oxidation base chosen from 3-methyl-4-aminophenol and acid addition salts thereof and at least one enzyme of laccase type, dyeing methods using this composition, and a kit comprising this composition.

Compositions for the oxidation dyeing of keratinous fibers comprising at least one oxidation dye, or at least one melanin precursor, in combination with enzymes of the laccase type, are known in the art. *Specification* at p. 1, line 26, to p. 3, line 9.

These dyeing formulations, however, although used under conditions which do not cause degradation of the keratinous fibers comparable to that caused by dyeings carried out in the presence of hydrogen peroxide, lead to colors which are still inadequate both from the point of view of homogeneity of the color distributed along the fiber (unison), from the point of view of chromaticity (luminosity) and of the dyeing power. *Id.* at p. 3, lines 9-17.

The present inventors have surprisingly discovered that it is possible to obtain novel dyes, which are capable of resulting in powerful colorings without causing significant degradation of the keratinous fibers, which exhibit low selectivity and which exhibit good resistance to various attacks to which the fibers may be subjected, by combining the claimed at least one oxidation base, and the claimed at least one enzyme of laccase type. *Id.* at p. 3, lines 18-26.

Issues

The issue presented for appeal is:

Whether claims 22-58 are unpatentable under 35 U.S.C. § 103(a) over WO'97/19999 ("Aaslyng'999") in view of U.S. Patent No. 5,769,903 ("Audousset").

Grouping Of Claims

Each claim of this patent application is separately patentable, and upon issuance of a patent will be entitled to a separate presumption of validity under 35 U.S.C. § 282. For convenience in handling this Appeal, however, the claims will be

grouped in one group. Thus, pursuant to 37 C.F.R. § 1.192(c)(7), in this Appeal, the rejected claims will stand or fall together.

Argument

The independent claims on appeal (claims 22, 50, 57 and 58) recite the common feature of a composition for the oxidation dyeing of keratinous fibers comprising (a) at least one oxidation base chosen from 3-methyl-4-aminophenol and the acid addition salts of said at least one oxidation base, and (b) at least one enzyme of laccase type.

In making a rejection under 35 U.S.C. § 103, the Office has the initial burden to establish a prima facie case of obviousness. M.P.E.P. § 2143. To establish a prima facie case of obviousness, the Office must demonstrate, among other things, that there is some suggestion or motivation, either in the cited references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify a reference or combine reference teachings. M.P.E.P. § 2143.03. Furthermore, the teaching or suggestion to make the claimed combination must be found in the prior art, not in Appellants' disclosure. See *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991). For the reasons that follow, Appellants submit that the Office has failed to make a prima facie case of obviousness because it has not met any, let alone all of the above criteria.

THERE IS NO MOTIVATION TO COMBINE AASLYNG'999 WITH AUDOUSSET

The Office maintains the rejection of claims 22-58 under 35 U.S.C. § 103(a) as being unpatentable over "*Aaslyng'999*" in view of "*Audousset*" for the reasons set forth in the Office Action dated March 26, 2002, and as supplemented at pages 2-3 of the final Office Action dated October 8, 2002. *Final Office Action* dated October 8, 2002, at p. 2. The Office alleges that "the primary reference suggests the genus of the para-aminophenol as an oxidation base in the dying composition while the secondary reference teaches the species of 4-amino-3-methylphenol...Therefore, the combination is proper and the prima facie case of obviousness has been established." *Final Office Action* dated October 8, 2002, at p. 3.

As a basis for its rejection, the Office alleges that *Aaslyng'999* teaches a dyeing composition comprising various individual components, including "para-aminophenols (see page 9, line 25.)" *Office Action*, dated March 26, 2002, at p. 3.

Appellants submit that *Aaslyng'999* discloses the singular "para-aminophenol" as a species of oxidation base at page 9, line 25. Appellants do not believe the references support the Office's conclusion, nor has the Office pointed to the specific passages in the references that could support its position.

Rather, Appellants submit that the Office has again mischaracterized the teachings of *Aaslyng'999*. Specifically, the Office alleges that *Aaslyng'999* teaches "the genus of the para-aminophenol as an oxidation base." *Final Office Action* dated October 8, 2002, at p. 3. Appellants disagree, and submit that *Aaslyng'999*

discloses the singular para-aminophenol as a species of oxidation base, rather than the plural genus of para-aminophenols as alleged by the Office. For example, *Aaslyng*'999 at page 9, line 23, to page 10, line 19, discloses a large number of dye precursor species (such as p-aminophenol and o-aminophenol) and several genera of dye precursors (such as phenazines, p-amino-benzoic acids) with examples of species within each of the genera. In each instance, one of ordinary skill would understand which is a species and which is a genus. In particular, p-aminophenol is clearly identified as a single species and all genera are clearly recognizable as genera because of the use of the plural and the disclosure of species within the genus. For this reason, Appellants submit that *Aaslyng*'999 fails to encompass or disclose the genus of para-aminophenol as asserted by the Office.

The Office urges that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify *Aaslyng*'999 using the teachings of *Audousset* to devise the claimed invention. *Office Action* dated March 26, 2003, at pages 4-5. In support of this rejection, the Office states:

[s]uch modification would be obvious because one would expect that use water, organic solvents, direct dye and surfactants with a multicompartiment device as taught by Audousset **would be similarly useful and applicable** to the analogous composition taught by *Aaslyng*.

Id., emphasis added. Furthermore, as stated above, the Office urges that

"[*Aaslyng*'999] suggests the genus of the para-aminophenol as an oxidation base in the dying composition while [*Audousset*] teaches the species of 4-amino-3-

methylphenol...Therefore, the combination is proper and the prima facie case of obviousness has been established." *Final Office Action* dated October 8, 2002, at p.

3. Appellants respectfully submit that this rationale lacks the required motivation and expectation of success and fails to meet the Office's burden of establishing a prima facie case of obviousness.

The Federal Circuit has held that there must be a clear and particular suggestion in the prior art to combine the teachings of the cited references in the manner proposed by the Examiner. As explained by the Federal Circuit, "[o]ur case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references." *In re Dembiczak* 50 USPQ2d 1614, 1617 (Fed. Cir. 1999). Modifying prior art references without evidence of such a suggestion or motivation simply takes the inventor's specification as a blueprint for piecing together the prior art to defeat patentability, *i.e.*, the essence of hindsight. *Id.* This is why the Federal Circuit placed the burden on the Office to present "clear and **particular**" **evidence** showing motivation to combine or modify. *Id.*, emphasis added.

The Examiner can meet the burden of establishing a prima facie case of obviousness "only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references." *In re Fine*,

5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988) (internal citations omitted) (emphasis added).

On January 18, 2002, the Federal Circuit again reaffirmed the Examiner's high burden to establish a prima facie case of obviousness and emphasized the requirement for specificity. In *In re Lee*, the Federal Circuit held that "[t]he factual inquiry whether to combine references must be thorough and searching. It must be based on objective evidence of record. This precedent has been reinforced in myriad decisions, and cannot be dispensed with." 61 USPQ2d 1430, 1433 (Fed. Cir. 2002). Further, the Federal Circuit explained that

[t]he need for specificity pervades this authority... the examiner can satisfy the burden of showing obviousness of the combination **only by showing some objective teaching** in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references.

Id. at 1433-1439, citations omitted, emphasis added. Moreover,

[t]his factual question of motivation is material to patentability, and could not be resolved on subjective belief and unknown authority. It is improper, in determining whether a person of ordinary skill would have been led to this combination of references, simply to '[use] that which the inventor taught against its teacher.' ... Thus the [Office] must not only assure that the requisite findings are made, based on evidence of record, but must also **explain the reasoning** by which the findings are deemed to support the agency's conclusion.

Id. at 1434, citations omitted, emphasis added.

In the present case, Appellants respectfully submit that the requisite objective teaching is not present in the references. For example, one of ordinary skill in the

art reading the cited references would not be motivated to substitute p-aminophenol with 3-methyl-4-aminophenol because, as emphasized above, the single species p-aminophenol is disclosed in *Aaslyng*'999, rather than a genus of compounds.

Moreover, modifying the references by merely selecting certain possible components from each reference to devise the composition of the claimed invention, without further motivation in the art, is an insufficient basis for maintaining a prima facie case of obviousness. Rather, the Federal Circuit has held that the Examiner must point to a specific teaching to make the combination; a burden the Examiner has not and can not meet. Appellants therefore submit that the Office has failed to show the required objective teaching in the cited references or that knowledge generally available to one of ordinary skill in the art would lead an individual to combine the relevant teachings of the references to devise the present invention.

Furthermore, since *Aaslyng*'999 merely teaches the singular species para-aminophenol and *Audousset* discloses 4-amino-3-methylphenol, Appellants submit that the Office has failed to provide any motivation for the combination because merely selecting certain possible components from each reference to devise the composition of the claimed invention, without further motivation in the art, is an insufficient basis for maintaining a prima facie case of obviousness. Indeed, the Office has not provided any substantial evidence for substituting *Aaslyng*'999's para-aminophenol species with *Audousset*'s 4-amino-3-methylphenol species.

In addition, the Office has failed to provide adequate motivation for the proposed combination because *Audousset* merely teaches compositions comprising at least one oxidation base, at least one coupler selected from indole couplers, and at least one additional heterocyclic coupler. See *Audousset*, column 2, line 10 to column 3, line 58. The composition of *Audousset* is substantially dissimilar to the composition of *Aaslyng '999*, which comprises a laccase enzyme and at least one dye precursor. See *Aaslyng '999* abstract. Appellants respectfully submit that the Office has not properly pointed to any teaching in the references, nor do Appellants believe that any exist, that would have led to the addition of *Audousset*'s 3-methyl-4-aminophenol oxidation base to the composition of *Aaslyng '999*. The Office has therefore failed to provide substantial evidence of why one of ordinary skill in the art would have been motivated to combine these two references to devise a particular composition comprising at least one oxidation base chosen from 3-methyl-4-aminophenol and the addition salts thereof, and at least one enzyme of laccase type.

As a result, Appellants respectfully submit that a prima facie case of obviousness in view of *Aaslyng '999* and *Audousset* has not been established, and accordingly request withdrawal of the rejection.

Conclusion

For the reasons set forth above, Appellants respectfully maintain that a prima facie case of obviousness has not been established by the Office based on the cited

references, taken alone or in combination. Thus, Appellants respectfully request reversal of all the rejections of claims 22-58 under 35 U.S.C. § 103(a).

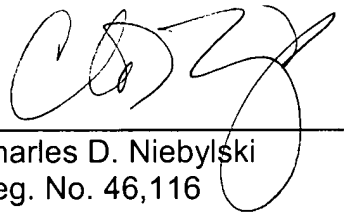
To the extent any further extension of time under 37 C.F.R. § 1.136 is required to obtain entry of this Appeal Brief, such extension is hereby respectfully requested. If there are any fees due under 37 C.F.R. §§ 1.16 or 1.17 which are not enclosed herewith, including any fees required for an extension of time under 37 C.F.R. § 1.136, please charge such fees to our Deposit Account No. 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.

Date: June 9, 2003

By: _____


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APPENDIX - PENDING CLAIMS

22. A composition for the oxidation dyeing of keratinous fibers comprising:

- (a) at least one oxidation base chosen from 3-methyl-4-aminophenol and the acid addition salts of said at least one oxidation base; and
- (b) at least one enzyme of laccase type.

23. A composition according to Claim 22, wherein said keratinous fibers are human keratinous fibers.

24. A composition according to Claim 23, wherein said human keratinous fibers are hair.

25. A composition according to Claim 22, wherein said at least one oxidation base is present in a concentration ranging from 0.0005% to 12% by weight of the total weight of said composition.

26. A composition according to Claim 25, wherein said at least one oxidation base is present in a concentration ranging from 0.005% to 6% by weight of the total weight of said composition.

27. A composition according to Claim 22, wherein said at least one enzyme of laccase type is chosen from laccases of plant origin, animal origin, fungal origin and bacterial origin and laccases obtained by biotechnology.

28. A composition according to Claim 22, wherein said at least one enzyme of laccase type is chosen from those extracted from plants chosen from Anacardiaceae, Podocarpaceae, Rosmarinus off., Solanum tuberosum, Iris sp., Coffea sp., Daucus carota, Vinca minor, Persea americana, Catharethus roseus, Musa sp., Malus pumila, Ginkgo biloba, Monotropa hypopithys, Aesculus sp., Acer pseudoplatanus, Prunus persica and Pistacia palaestina.

29. A composition according to Claim 27, wherein said at least one enzyme of laccase type is chosen from laccases of microbial origin and laccases obtained by biotechnology.

30. A composition according to Claim 22, wherein said at least one enzyme of laccase type is chosen from laccases derived from fungi chosen from Polyporus versicolor, Rhizoctonia praticola, Rhus vernicifera, Scytalidium, Polyporus pinsitus, Myceliophthora thermophila, Rhizoctonia solani, Pyricularia orizae, Trametes versicolor, Fomes fomentarius, Chaetomium thermophile, Neurospora crassa, Coriolus versicol, Botrytis cinerea, Rigidoporus lignosus, Phellinus noxius, Pleurotus ostreatus, Aspergillus nidulans, Podospora anserina, Agaricus bisporus, Ganoderma lucidum, Glomerella cingulata, Lactarius piperatus, Russula delica, Heterobasidion annosum, Thelephora terrestris, Cladosporium cladosporioides, Cerrena unicolor, Coriolus hirsutus, Ceriporiopsis subvermisporea, Coprinus cinereus, Panaeolus papilionaceus, Panaeolus sphinctrinus, Schizophyllum commune, Dichomitius squalens and variants of all said fungi.

31. A composition according to Claim 22, further comprising at least one coupler chosen from meta-phenylenediamines, meta-aminophenols, meta-diphenols, heterocyclic couplers and the acid addition salts of all said couplers.

32. A composition according to Claim 31, wherein said at least one coupler is chosen from 2-methyl-5-aminophenol, 5-N-(β -hydroxyethyl)amino-2-methylphenol, 3-aminophenol, 1,3-dihydroxybenzene, 1,3-dihydroxy-2-methylbenzene, 4-chloro-1,3-dihydroxybenzene, 2,4-diamino-1-(β -hydroxyethyloxy)benzene, 2-amino-4-N-(β -hydroxyethyl)amino-1-methoxybenzene, 1,3-diaminobenzene, 1,3-bis(2,4-diaminophenoxy)propane, sesamol, α -naphthol, 6-hydroxyindole, 4-hydroxyindole, 4-hydroxy-N-methylindole, 6-hydroxyindoline, 2,6-dihydroxy-4-methylpyridine, 1-H-3-methylpyrazole-5-one, 1-phenyl-3-methylpyrazole-5-one, 2,6-dimethylpyrazolo[1,5-b]-1,2,4-triazole, 2,6-dimethyl[3,2-c]-1,2,4-triazole, 6-methylpyrazolo[1,5-a]benzimidazole and the acid addition salts of all said couplers.

33. A composition according to Claim 31, wherein said at least one coupler is present in a concentration ranging from 0.0001% to 8% by weight of the total weight of said composition.

34. A composition according to Claim 33, wherein said at least one coupler is present in a concentration ranging from 0.005% to 5% by weight of the total weight of said composition.

35. A composition according to Claim 22, further comprising at least one additional oxidation base chosen from para-phenylenediamines, double bases, para-aminophenols, ortho-aminophenols, heterocyclic oxidation bases and the acid addition salts of all said additional oxidation bases.

36. A composition according to Claim 35, wherein said at least one additional oxidation base is present in a concentration ranging from 0.0005% to 12% by weight of the total weight of said composition.

37. A composition according to Claim 36, wherein said at least one additional oxidation base is present in a concentration ranging from 0.005% to 6% by weight of the total weight of said composition.

38. A composition according to Claim 22, wherein said acid addition salts are chosen from hydrochlorides, hydrobromides, sulfates and tartrates, lactates and acetates.

39. A composition according to Claim 31, wherein said acid addition salts are chosen from hydrochlorides, hydrobromides, sulfates and tartrates, lactates and acetates.

40. A composition according to Claim 35, wherein said acid addition salts are chosen from hydrochlorides, hydrobromides, sulfates and tartrates, lactates and acetates.

41. A composition according to Claim 22, further comprising a medium appropriate for dyeing.

42. A composition according to Claim 41, wherein said medium appropriate for dyeing is chosen from water and at least one organic solvent.

43. A composition according to Claim 22 having a pH ranging from about 4 to about 11.

44. A composition according to Claim 43, wherein said pH ranges from about 6 to about 9.

45. A composition according to Claim 22, wherein said composition is a ready-to-use composition.

46. A composition according to Claim 22, further comprising at least one direct dye.

47. A composition according to Claim 22, further comprising at least one suitable additive chosen from anionic surfactants, cationic surfactants, nonionic surfactants, amphoteric surfactants, zwitterionic surfactants, polymers, antioxidants, enzymes different from said at least one enzyme of laccase type as defined in Claim 1, penetrating agents, sequestering agents, perfumes, buffers, dispersing agents, thickeners, film-forming agents, preservatives, opacifying agents and vitamins.

48. A composition according to Claim 22 in the form of a liquid, a cream, a gel or in any other form appropriate for keratinous fibers.

49. A composition according to Claim 48, wherein said composition form may optionally be pressurized.

50. A method for dyeing keratinous fibers comprising the step of applying a ready-to-use composition to said fibers for a time sufficient to achieve a desired colouration, wherein said ready-to-use composition comprises:

- (a) at least one oxidation base chosen from 3-methyl-4-aminophenol and the acid addition salts of said at least one oxidation base; and
- (b) at least one enzyme of laccase type.

51. A method according to Claim 50, further comprising the step of rinsing said composition from said fibers.

52. A method according to Claim 51, further comprising the step of washing the fibers.

53. A method according to Claim 52, further comprising the step of rinsing said fibers a second time.

54. A method according to Claim 53, further comprising the step of drying said fibers.

55. A method according to Claim 50, wherein said time sufficient to achieve a desired colouration ranges from 3 to 60 minutes.

56. A method according to Claim 55, wherein said time sufficient to achieve a desired colouration ranges from 5 to 40 minutes.

57. A method for dyeing keratinous fibers comprising the steps of:

- (a) storing a first composition,
- (b) storing a second composition separately from said first composition,
- (c) mixing the first composition with the second composition to form a mixture, and
- (d) applying said mixture to said keratinous fibers for a time sufficient to achieve a desired colouration,

wherein said first composition comprises at least one oxidation base chosen from 3-methyl-4-aminophenol and the acid addition salts of said at least one oxidation base in a medium appropriate for keratinous fibers, and

wherein said second composition comprises at least one enzyme of the laccase type in a medium appropriate for keratinous fibers.

58. A multicompartment device or dyeing kit, wherein said device or kit comprises:

- (a) a first compartment comprising a first composition, and
- (b) a second compartment comprising a second composition,

wherein said first compartment comprises at least one oxidation base chosen from 3-methyl-4-aminophenol and the acid addition salts of said at least one oxidation base in a medium appropriate for keratinous fibers, and

wherein said second compartment comprises at least one enzyme of the laccase type in a medium appropriate for keratinous fibers.